WHAT IS CLAIMED IS:

1. A method for producing a biologically active protein, comprising:

transforming a bacterial host cell with a plasmid having at least one copy of an expressible gene encoding said protein;

infecting the transformed bacterial host cell with a bacteriophage capable of mediating lysis and also capable of lytic growth without lysis; and

cultivating the bacterial host cell under a culture condition that induces lytic growth of said cell without lysis until a desired level of production of said protein is reached.

2. The method of claim 1, wherein the bacteriophage has a temperature-sensitive mutation.

3. The method of claim 2, wherein the bacteriophage is bacteriophage λ and the temperature-sensitive mutation is cI_{857}.

4. The method of claim 2, wherein said culture condition that induces lytic growth of the bacteriophage is at a temperature of greater than 32° C.

5. The method of claim 2, wherein prior to the cultivating step, the bacterial host cells are grown at a temperature which prevents lytic growth of the bacteriophage.

6. The method of claim 5, wherein the temperature which prevents lytic growth of the bacteriophage is less than about 32° C.

7. The method of claim 1, wherein the bacteriophage has a mutation in at least one gene involved in bacteriophage-mediated lysis of the bacterial host cell.

8. The method of claim 7, wherein the bacteriophage is bacteriophage λ and the at least one gene involved in bacteriophage-mediated lysis is selected from the group consisting of N, Q and R.

9. The method of claim 1, wherein the bacterial host cell is a strain of *E. coli*.

10. The method of claim 9, wherein the strain of *E. coli* produces a suppressor for the repair of amber-mutations.

11. The method of claim 9, wherein the strain of *E. coli* lacks a suppressor for the repair of amber-mutations.

12. The method of claim 1, wherein the infecting bacteriophage is provided at a multiplicity of infection in a range of about 1 to about 100.

13. The method of claim 1, wherein the infecting bacteriophage is provided at a multiplicity of infection in a range of about 10 to about 25.

14. The method of claim 1, wherein bacteriophage-mediated lysis of the bacterial host cell is delayed at higher multiplicities of infection relative to lower multiplicities of infection.

15. The method of claim 1, wherein the bacteriophage contains at least one copy of an expressible gene encoding said protein.

16. A method for producing a biologically active protein, comprising:

transforming a bacterial host cell with a plasmid having at least one copy of an expressible gene encoding said protein;

infecting the transformed bacterial host cell with a bacteriophage having at least one copy of an expressible gene encoding said protein; and

cultivating the bacterial host cell under a culture condition that allows expression of said genes.

17. The method of claim 16, wherein the bacteriophage has a temperature-sensitive mutation.

18. The method of claim 17, wherein the bacteriophage is bacteriophage λ and the temperature-sensitive mutation is cI_{857}.

19. The method of claim 16, wherein the bacteriophage has a mutation in at least one gene involved in bacteriophage-mediated lysis of the bacterial host cell.

20. The method of claim 19, wherein the bacteriophage is bacteriophage λ and the at least one gene involved in bacteriophage-mediated lysis is selected from the group consisting of N, Q and R.

21. The method of claim 16, wherein the bacterial host cell is a strain of *E. coli*.

22. The method of claim 21, wherein the strain of *E. coli* produces a suppressor for repairing amber-mutations.

23. The method of claim 21, wherein the strain of *E. coli* lacks a suppressor for repairing amber-mutations.

24. A bacterial host cell with a plasmid having at least one copy of an expressible heterologous gene encoding a protein, wherein said host cell is infected with a bacteriophage capable of mediating lysis and also capable of lytic growth without lysis.

25. The bacterial host cell of Claim 24, wherein the bacteriophage has a temperature-sensitive mutation.

26. The bacterial host cell of Claim 25, wherein the bacteriophage is bacteriophage λ and the temperature-sensitive mutation is cI_{857}.

27. The bacterial host cell of Claim 24, wherein the bacteriophage has a mutation in at least one gene involved in bacteriophage-mediated lysis of the host cell.

28. The bacterial host cell of Claim 27, wherein the bacteriophage is bacteriophage λ and the at least one gene involved in bacteriophage-mediated lysis is selected from the group consisting of N, Q and R.

29. The bacterial host cell of Claim 24, wherein the bacteriophage is bacteriophage λ having cI_{857}, $Q_{am\ 117}$ and $R_{am\ 54}$ mutations.

30. The bacterial host cell of Claim 24, wherein the bacteriophage has at least one copy of an expressible heterologous gene encoding said protein.

31. The bacterial host cell of Claim 24, wherein the bacterial host cell is a strain of *E. coli*.

32. The bacterial host cell of Claim 31, wherein the strain of *E. coli* lacks a suppressor for repairing amber-mutations.

33. The bacterial host cell of Claim 31, wherein the strain of *E. coli* is recA deficient.

34. A strain of *E. coli* with a plasmid having at least one copy of an expressible heterologous gene encoding a protein, wherein said strain of *E. coli* is infected with bacteriophage λ having cI_{857}, $Q_{am\ 117}$ and $R_{am\ 54}$ mutations.

35. The strain of Claim 34, wherein said protein is human alpha-2b interferon.

36. The strain of Claim 34, wherein said strain of *E. coli* lacks a suppressor for repairing amber-mutations.

37. The strain of Claim 36, further comprising recA 13.

38. A strain of *E. coli* with a plasmid having at least one copy of an expressible heterologous gene encoding a protein, wherein said strain of *E. coli* is infected with bacteriophage λ having cI_{857}, $Q_{am\ 117}$ and $R_{am\ 54}$ mutations and at least one copy of an expressible heterologous gene encoding said protein.

39. The strain of Claim 38, wherein said strain of *E. coli* lacks a suppressor for repairing amber-mutations.

40. The strain of Claim 37, wherein said protein is human alpha-2b interferon.